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Group Art Unit: 1644

Attorney
Docket: 29993

Docket: 29993

22

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Sir:

Enclosed is a PTO Form 1449 which lists citations which may be material to the patentability and examination of the above identified application. Also enclosed are copies of the references cited. These are submitted in compliance with the duty of disclosure defined in 37 CFR 1.56. The Examiner is requested to make these citations of official record in this application.

This Information Disclosure Statement under 37 CFR 1.56 is not to be construed as a representation that a search has been made, that additional matter which is material to the examination of this application does not exist, or that any or more of these citations constitutes prior art.

Respectfully submitted,

Martin P. Montgomery

Martin D. Moynihan
Registration No. 40,338

Dated: June 3, 2007

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Substitute for form 1449A/PTO

Complete if Known

Application Number	10/551,715
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Filing Date	October 3, 2005
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First Named Inventor	Irit SAGI et al
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Art Unit	1644
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Examiner Name	Not yet Assigned
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Attorney Docket Number	299993
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Sheet

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of

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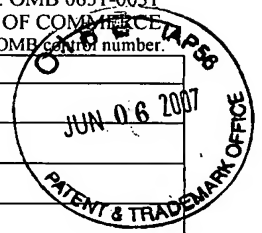
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Examiner Initials*	Cite No. ¹	Foreign Patent Documents	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Country Code ³ - Number ⁴ - Kind Code ⁵ (if known)			
	1	EP 0757984	02-12-1997	Sakaki et al.	
	2	EP 0780386	06-25-1997	Bender et al.	
	3	PCT WO 90/05719	05-31-1990	Campion et al.	
	4	PCT WO 93/20047	10-14-1993	Crimmin et al.	
	5	PCT WO 95/09841	04-13-1995	Crimmin et al.	
	6	PCT WO 95/29689	09-9-1995	Durette et al.	
	7	PCT WO 95/29892	09-9-1995	DeCicco et al.	
	8	PCT WO 96/06074	02-29-1996	Beckett et al.	
	9	PCT WO 97/24117	07-10-1997	Groneberg et al.	
	10	PCT WO 97/49679	12-31-1997	Takahashi et al.	
Examiner Signature				Date Considered	

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Substitute for form 1449A/PTO

INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(use as many sheets as necessary)

<p>Complete if Known</p> <p>Application Number 10/551,715</p> <p>Filing Date October 3, 2005</p> <p>First Named Inventor Irit SAGI et al</p> <p>Group Art Unit 1644</p> <p>Examiner Name Not yet Assigned</p>				Sheet	2	Of	8
				Attorney Docket Number 29993			
				OTHER PRIOR ART – NON PATENT LITERATURE DOCUMENTS			
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					11	Mohler et al. "Protection Against A Lethal Dose of Endotoxin by An Inhibitor of Tumour Necrosis Factor Processing", Nature, 370: 218-220, 1994.	
	12	Momenteau et al. "Both-Faces Hindered Porphyrins. Part 1. Synthesis and Characterization of Basket-Handle Porphyrins and Their Iron Complexes", Journal of Chemical Society Perkin Transactions, 1: 189-196, 1983.					
	13	Collman et al. "Effect of Axial Base on Dioxxygen and Carbon Monoxide Affinities of Iron(II) Porphyrins. Imidazole Vs. Pyridine", Inorganic Chemistry, 22: 1427-1432, 1983.					
	14	Collman et al. "Reversible Oxygen Adduct Formation in Ferrous Complexes Derived From A 'Picket Fence' Porphyrin. A Model for Oxymyoglobin", Journal of the American Chemical Society, 95(23): 7868-7870, 1973.					
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	16	Cote et al. "Generation of Human Monoclonal Antibodies Reactive With Cellular Antigens", Proc. Natl. Acad. Sci. USA, 80(7)[Part 1: Biological Sciences]: 2026-2030, 1983.					
	17	Baldwin et al. "Synthesis of Iron(II) 'C2-Capped Strapped' + Porphyrin Complexes and Their Reaction With Dioxxygen", Journal of the Chemical Society, Dalton Transactions, P.1739-1746, 1984.					
	18	Davidson et al. "The Inhibition of Matrix Metalloproteinase Enzymes", Chemistry and Industry, &: 258-261, 1997.					
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	20	Dean et al. "Evidence for Metalloproteinase and Metalloproteinase Inhibitor Imbalance in Human Osteoarthritic Cartilage", Journal of Clinical Investigation, 84: 678-685, 1989.					
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	23	Deshpande et al. "A Study of Zinc-Dependent Metalloendopeptidase Inhibitors as Pharmacological Antagonists in Botulinum Neurotoxin Poisoning", Toxicon, 33(4): 551-557, 1995.					
	24	Diekmann et al. "Cyclophane Porphyrin", Journal of the American Chemical Society, 93(16): 4068-4070, 1971.					
	25	Docherty et al. "The Matrix Metalloproteinases and Their Natural Inhibitors: Prospects for Treating Degenerative Tissue Diseases", Tibtech, 10: 201-207, 1992.					

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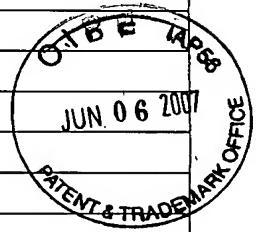
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**INFORMATION DISCLOSURE
STATEMENT BY APPLICANT**

(use as many sheets as necessary)

Complete if Known

Application Number	10/551,715
Filing Date	October 3, 2005
First Named Inventor	Irit SAGI et al
Group Art Unit	1644
Examiner Name	Not yet Assigned
Attorney Docket Number	29993



Sheet	3	Of	8
OTHER PRIOR ART – NON PATENT LITERATURE DOCUMENTS			
Examiner Initials	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial symposium, catalog, etc.) date, page(s), volume-issue number(s), publisher, city and/or country where published.	T ²
	26	Edlund et al. "Cell-Specific Expression of the Rat Insulin Gene: Evidence for Role of Two Distinct 5 [^] {\Prime}\$ Flanking Elements", Science, 230(4728): 912-916, 1985.	
	27	Fingl et al. "Introduction. General Principles", The Pharmacological Basis of Therapeutics, Sec.I(Chap.1): 1-46, 1975.	
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	29	Freije et al. "Molecular Cloning and Expression of Collagenase-3, A Novel Human Matrix Metalloproteinase Produced by Breast Carcinomas", The Journal of Biological Chemistry, 269(24): 16766-16773, 1994.	
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	39	Heath et al. "Phase I Trial of the matrix Metalloproteinase Inhibitor BAY12-9566 in Patients With Advanced Solid Tumors", Cancer Chemotherapy and Pharmacology, 48: 269-274, 20001.	
	40	Henriet et al. "Tissue Inhibitors of Metalloproteinases (TIMP) in Invasion and Proliferation", APMIS, 107: 111-119, 1999.	
	41	High "Gene Therapy: A 2001 Perspective", Haemophilia, 7(Suppl.1): 23-27, 2001.	

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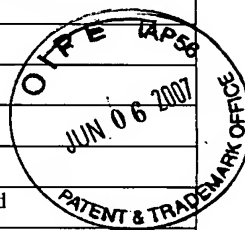
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**INFORMATION DISCLOSURE
STATEMENT BY APPLICANT**

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Complete if Known

Application Number	10/551,715
Filing Date	October 3, 2005
First Named Inventor	Irit SAGI et al
Group Art Unit	1644
Examiner Name	Not yet Assigned
Attorney Docket Number	29993



Sheet	4	Of	8
OTHER PRIOR ART – NON PATENT LITERATURE DOCUMENTS			
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	42	Hill et al. "Inhibition of Bone Resorption In Vitro by Selective Inhibitors of Gelatinase and Collagenase", Biochemical Journal, 308: 167-175, 1995.	
	43	Hodgson "Remodeling MMPs. Matrix Metalloproteinase Inhibitors Will Be Approved as Drugs, Probably This Year, But Questions Remain Concerning Their Specificity, Bioavailability, and Potential Long-Term Toxicity", Bio/Technology, 13: 554-557, 1995.	
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	47	Jones et al. "Replacing the Complementarity-Determining Regions in A Human Antibody With Those From A Mouse", Nature, 321: 522-525, 1986.	
	48	Kleifeld et al. "X-Ray Absorption Studies of Human Matrix Metalloproteinase-2 (MMP-2) Bound to A Highly Selective Mechanism-Based Inhibitor. Comparison With the Latent and Active Forms of the Enzyme", The Journal of Biological Chemistry, 276(20): 17125-17131, 2001.	
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	53	Larrick et al. "PCR Amplification of Antibody Genes", Methods: A Companion to Methods in Enzymology, 2(2): 106-110, 1991.	
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	55	Lonberg et al. "Antigen-Specific Human Antibodies From Mice Comprising Four Distinct Genetic Modifications", Nature, 368: 856-859, 1994.	
	56	Maret et al. "The PH Variation of Steady-State Kinetic Parameters of Site-Specific Co2+-Reconstituted Liver Alcohol Dehydrogenase", The Journal of Biological Chemistry, 266(31): 20636-20644, 1991.	

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	58	McGeehan et al. "Regulation of Tumour Necrosis Factor- α Processing by A Metalloproteinase Inhibitor", Nature, 370: 558-561, 1994.			
	59	Momenteau et al. "'Basket Handle' Porphyrins: New Synthetic Iron (II) Complexes for Oxygen Binding", Journal of Molecular Catalysis, 7: 315-320, 1980.			
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	62	Nagase et al. "Matrix Metalloproteinases", The Journal of Biological Chemistry, 274(31): 21491-21494, 1999.			
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	64	Nakada et al. "Expression and Tissue Localization of Membrane-Type 1, 2, and 3 Matrix Metalloproteinases in Human Astrocytic Tumors", American Journal of Pathology, 154(2): 417-428, 1999.			
	65	Netzel-Arnett et al. "Continuously Recording Fluorescent Assays Optimized for Five Human Matrix Metalloproteinases", Analytical Biochemistry, 195: 86-92, 1991.			
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	69	Orlandi et al. "Cloning Immunoglobulin Variable Domains for Expression by the Polymerase Chain Reaction", Proc. Natl. Acad. Sci. USA, 86(10): 3833-3837, 1989.			
	70	Pack et al. "Improved Bivalent Miniantibodies, With Identical Avidity as Whole Antibodies, Produced by High Cell Density Fermentation of Escherichia Coli", Bio/Technology, 11: 1271-1277, 1993.			
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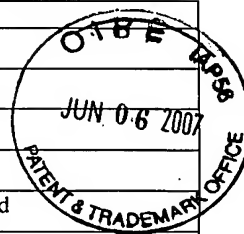
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	76	Ray et al. "The Role of Matrix Metalloproteases and Their Inhibitors in Tumour Invasion, Metastasis and Angiogenesis", <i>European Respiratory Journal</i> , 7: 2062-2072, 1994.	
	77	Rehr et al. "Theoretical X-Ray Absorption Fine Structure Standards", <i>Journal of American Chemical Society</i> , 113(14): 5135-5140, 1991.	
	78	Reponen et al. "Molecular Cloning of Murine 72-Kda Type IV Collagenase and Its Expression During Mouse Development", <i>The Journal of Biological Chemistry</i> , 267(11): 7856-7862, 1992.	
	79	Riechmann et al. "Reshaping Human Antibodies for Therapy", <i>Nature</i> , 332: 323-327, 1988.	
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	82	Schwartz et al. "Synthetic Inhibitors of Bacterial and Mammalian Interstitial Collagenases", <i>Progress in Medicinal Chemistry</i> , 29(Chap.8): 271-334, 1992.	
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Application Number	10/551,715
Filing Date	October 3, 2005
First Named Inventor	Irit SAGI et al
Group Art Unit	1644
Examiner Name	Not yet Assigned



Attorney Docket Number 29993

Sheet	7	Of	8
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Examiner Initials	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial symposium, catalog, etc.) date, page(s), volume-issue number(s), publisher, city and/or country where published.	T ²
	91	Verhoeven et al. "Reshaping Human Antibodies: Grafting An Antilysozyme Activity", Science, 239(4847): 1534-1536, 1988.	
	92	Walakovits et al. "Detection of Stromelysin and Collagenase in Synovial Fluid From Patients With Rheumatoid Arthritis and Posttraumatic Knee Injury", Arthritis and Rheumatism, 35(1): 35-42, 1992.	
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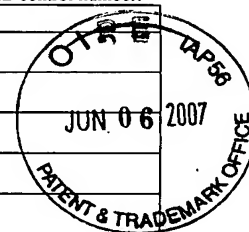
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	108	Battersby et al. "Sythetic Routes to Singly and Doubly Bridged Porphyrins", Tetrahedron Letters, 34: 3169-3172, 1978.	
	109	Belaouaj et al. "Human Macrophage Metalloelastase. Genomic Organization, Chromosomal Location, Gene Linkage, and Tissue-Specific Expression", The Journal of Biological Chemistry, 270(24): 14568-14575, 1995.	
	110	Bird et al. "Single-Chain Antigen-Binding Proteins", Science, 242(4877): 423-426, 1988.	
	111	Bode et al. "The X-Ray Crystal Structure of the Catalytic Domain of Human Neutrophil Collagenase by A Substrate Analogue Reveals the Essentials for Catalysis and Specificity", The EMBO Journal, 13(6): 1263-1269, 1994.	
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